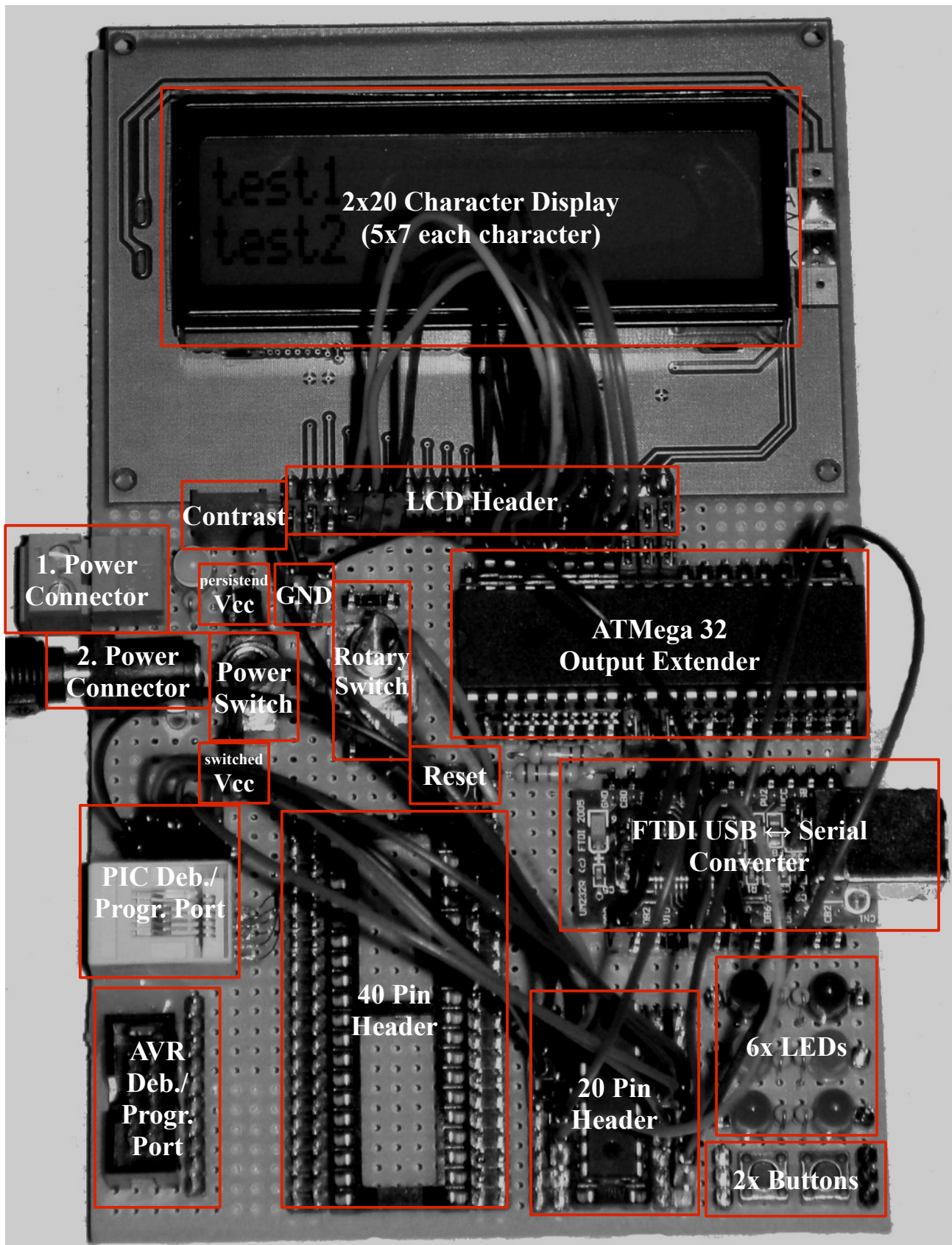


1 Board Overview

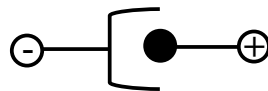


2 Connector Description

2.1 1. Power Connector

PIN	DESCRIPTION
above	Vcc
below	GND

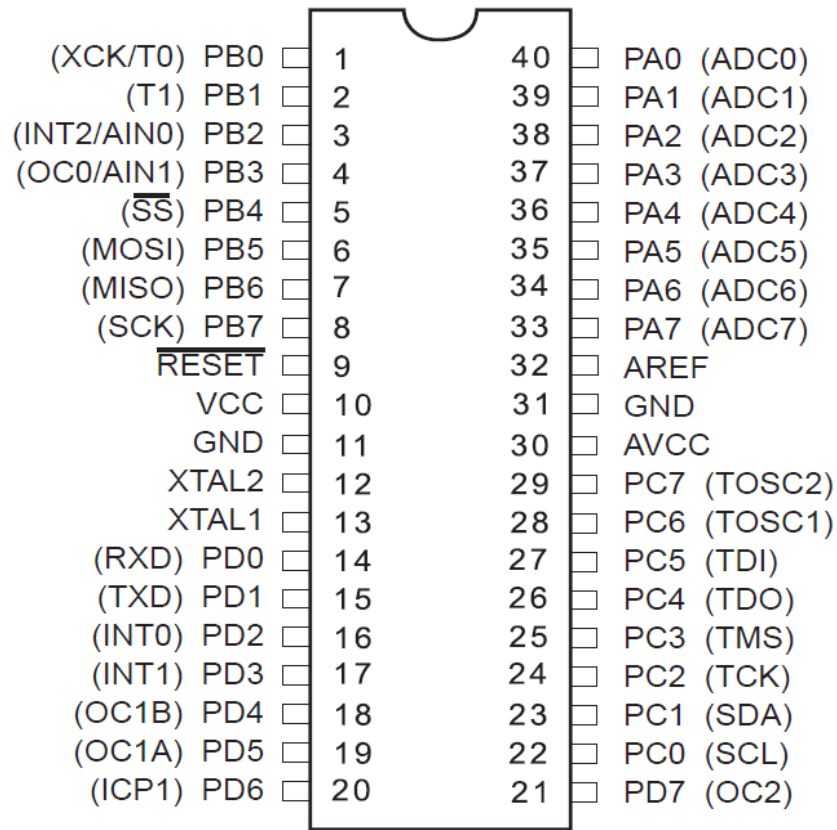
2.2 2. Power Connector



2.3 LCD Header

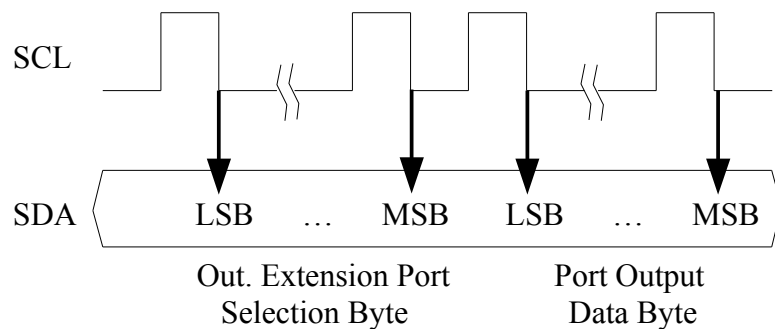
PIN	SYMBOL	DESCRIPTION
1	Vss	0V
2	Vdd	+ 5V
3	Vo	Contrast + 0,7V
4	RS	Register Select
5	RW	Data Read/Write
6	EN	Enable Signal
7	DB0	Data Bus Line
8	DB1	Data Bus Line
9	DB2	Data Bus Line
10	DB3	Data Bus Line
11	DB4 (DB0 – 4 Bit Mode)	Data Bus Line
12	DB5 (DB1 – 4 Bit Mode)	Data Bus Line
13	DB6 (DB2 – 4 Bit Mode)	Data Bus Line
14	DB7 (DB3 – 4 Bit Mode)	Data Bus Line
15	-	-
16	-	-
17	-	-
18	-	-
19	A LED	Background Light (5,7V 30mA)
20	K LED	Background Light (GND)

2.4 ATmega32 Output Extender



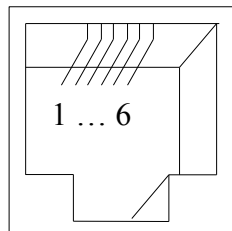
PIN	SYMBOL	DESCRIPTION
22 – PC0	SCL	Serial Communication Clock
23 – PC1	SDA	Serial Communication Data
40-33 – PA0-PA7	SDS PORTA	Output Extension Port A
1-8 – PB0-PB7	SDS PORTB	Output Extension Port B
14-21 – PD0-PD7	SDS PORTD	Output Extension Port D

The first data input have to be after 200ms. The first Byte specifies the output extension port. The second Byte is directly mapped to the selected port. The data value will be taken if a falling clock edge is detected.



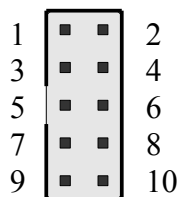
2.5 PIC Debug/Programmer Header

PIN	SYMBOL	DESCRIPTION
1	!MCLR/Vpp	Reset/Programming Voltage
2	Vdd	Positive Supply Voltage
3	Vss	Negative Supply Voltage
4	PGD/ICSPDAT	Data Pin
5	PGC/ICSPCLK	Clock Pin
6	-	-

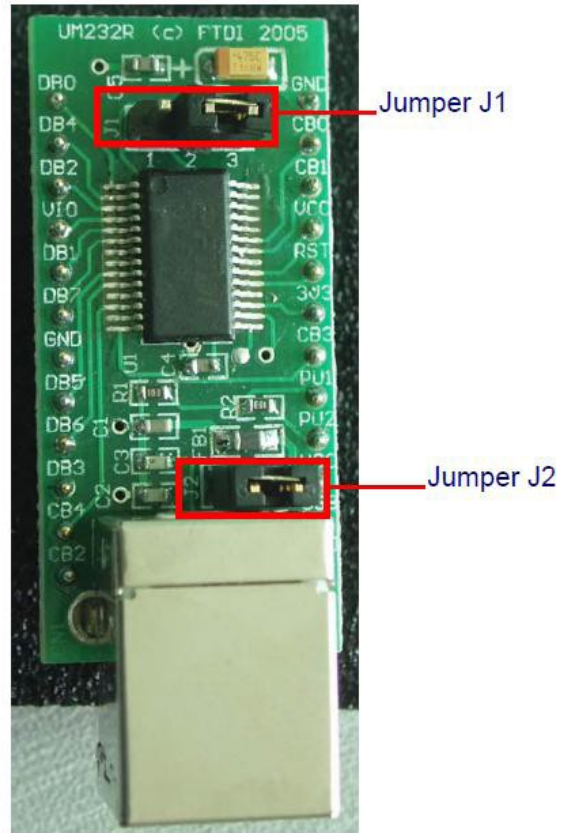
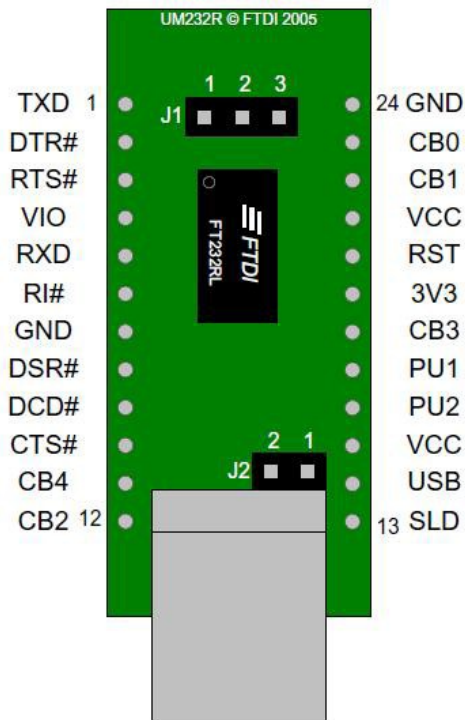


2.6 AVR Debug/Programmer Header

PIN	SYMBOL ISP	DESCRIPTION	SYMBOL JTAG	DESCRIPTION
1	MOSI	Master Out Slave In	TCK	Test Clock
2	Vcc	Supply Voltage	GND	Ground
3	-	-	TDO	Test Data Output
4	-	-	Vcc	Supply Voltage
5	RST	Reset	TMS	Test Mode Select Input
6	GND	Ground	RST	Reset
7	SCK	Serial Clock	Vcc	Supply Voltage
8	GND	Ground	-	-
9	MISO	Master In Slave Out	TDI	Test Data Input
10	GND	Ground	GND	Ground



2.7 FTDI USB ↔ Serial Converter

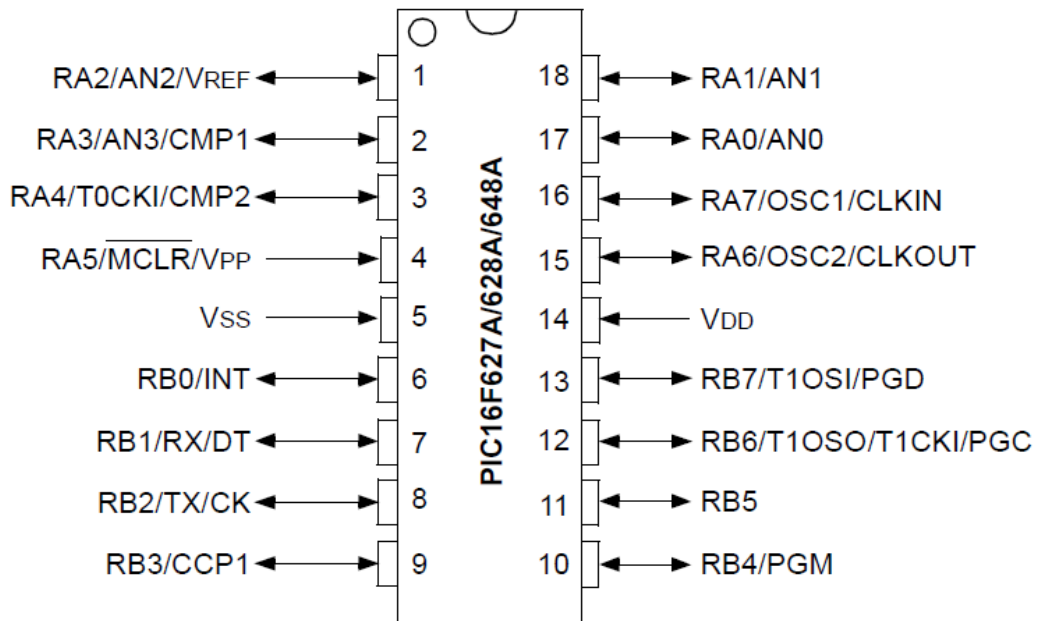
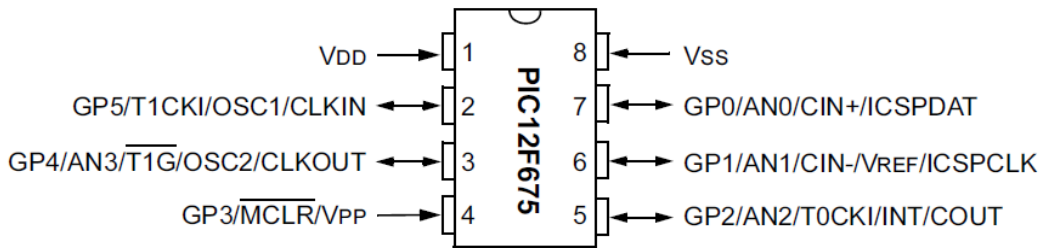


JUMPER J1	DESCRIPTION
1_2	5V Operation
2_3	3,3V Operation

JUMPER J2	DESCRIPTION
1_2	Board Vcc Connected To USB PWR

NEEDED PIN	DESCRIPTION
1	USB ↔ UART Transmitter Output
5	USB ↔ UART Receiver Input
7	GND (Connected to DevBoard)

3 PIC Controller Pinout



4 AVR Controller Pinout

